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EXAMINER

BUI, HUNG S

ART UNIT PAPER NUMBER

2841

DATE MAILED: 02/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/533,825

Applicant(s)

BLANC ET AL.

Examiner

Hung S Bui

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 12/04/02.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 and 48-64 is/are pending in the application.
- 4a) Of the above claim(s) 31-47 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 53-64 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 9-12, 16-30, 52 is/are rejected.
- 7) ☒ Claim(s) 4,5,7,8,13-15 and 48-51 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. PCT/FR98/02051.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 10 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohtani et al. [US 4,977,441].

Regarding claim 1, Ohtani et al. disclose an electronic chip device (1, see figure 4) comprising an interface support film (8, see column 4, lines 46-52) including a support film and at least one flat conductive interface (6) placed on the support film, said interface support film having such properties that it is capable of being creased or folded over (see figure 5) onto itself without deterioration, and a microcircuit (2) connected to the interface (see column 3, lines 45-50).

Regarding claim 10, Ohtani et al. disclose the polyimide support film (see column 4, line 10).

Regarding claim 19, Ohtani et al. disclose the interface having connection pads (see figure 4a, column 4, lines 50-57).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2841

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3, 6, 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al. in view of Houdeau et al. [US 5,982,628].

Regarding claim 2, Ohtani et al. disclose an electronic chip device (1, see figure 4) comprising an interface support film (8) including a support film and at least one flat conductive interface (6) placed on the support film, a microcircuit (2) connected to the interface, and a compensation film (5, see column 4, lines 9-12) placed on the support film, said compensation film having a recess (see figure 4) containing said microcircuit, its connections.

Ohtani et al. disclose the instant claimed invention except for: an encapsulating material encapsulating the microcircuit.

Houdeau et al. disclose a microcircuit (3) connected to a sheet (1) being encapsulated in a casting resin (4).

It would have been an obvious to a person having ordinary skill in the art at the time invention was made to use the encapsulating design of Houdeau et al. in Ohtani et al., for the purpose of protecting the microcircuit.

Regarding claims 3 and 20, Ohtani et al. disclose an electronic chip device (1, see figure 4) comprising an interface support film (8) including a support film and at least one flat conductive interface (6) placed on the support film, a microcircuit (2) connected to the interface, and a compensation film (5, see column 4, lines 9-12) placed on the

Art Unit: 2841

support film, said compensation film having a recess (see figure 4) containing said microcircuit, its connections.

Ohtani et al. disclose the instant claimed invention except for: an encapsulating material encapsulating the microcircuit.

Houdeau et al. disclose a microcircuit (3) connected to a sheet (1) being encapsulated in a casting resin (4).

It would have been an obvious to a person having ordinary skill in the art at the time invention was made to use the encapsulating design of Houdeau et al. in Ohtani et al., for the purpose of protecting the microcircuit.

Regarding claim 6, Ohtani et al. disclose the instant claimed invention except for: the encapsulating material is contained at least partly by said recess.

Houdeau et al. disclose the casting resin completely surrounding the microcircuit (see figure 2).

It would have been an obvious to a person having ordinary skill in the art at the time invention was made to have the resin completely surround the microcircuit and cavity/recess as suggested by Houdeau et al., for the purpose of completely protecting the microcircuit.

Regarding claim 9, Ohtani et al. discloses the claimed invention except for the support film having at least one of an elongation at break of more than 80 %, a shore hardness of less than 80, a vitreous transition temperature T_g of less than 0° , and a fusion temperature of less than 130°C .

Art Unit: 2841

It would have been an obvious matter of design choice, absent evidence of criticality shown in the present invention and the lack of implicit or explicit limit to a specific design in the prior art, to change the elongation at break, the shore hardness, the vitreous transition temperature Tg or the fusion temperature, since applicant has not disclosed that any particular elongation at break, shore hardness, vitreous transition temperature Tg or fusion temperature solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well with elongation at break, shore hardness, vitreous transition temperature Tg or fusion temperature of Ohtani et al. It is noted that it is a truism that a claim need not be limited to a preferred embodiment. *Ethicon*, 93 F.3d at 1582 n.7, 40 USPQ2d at 1027 n.7 (quoting In re Vickers, 141 F.2d 522, 525, 61 USPQ2d 122, 125 (CCPA 1944)).

5. Claims 11-12 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al. in view of Houdeau et al. as applied to claim 1 above, and further in view of Masahiko [US 5,852,289].

Regarding claim 11, Ohtani et al. in view of Houdeau et al. disclose the instant claimed invention except for: the interface is aluminum.

Masahiko discloses an aluminum interface (see figure 10, element 106).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the aluminum material interface design of Masahiko for the material interface of Ohtani et al. in view of Houdeau et al., for the purpose of providing reinforcement.

Art Unit: 2841

Regarding claims 12 and 16, Ohtani et al. in view of Houdeau et al. disclose the instant claimed invention except for: the interface having turns of conductive material and the microcircuit placed outside the turns.

Masahiko discloses turns (14) mounted on an interface with a microchip (13) placed outside of the turns and in a corner (claim 16, see figure 5) on the interface.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use mounting design of Masahiko for the microchip of Ohtani et al. in view of Houdeau et al., for the purpose of reducing interference.

Regarding claims 17 and 18, Ohtani et al. in view of Houdeau et al. disclose the instant claimed invention except for: the interface having at least one antenna turn formed in such a way as to be able to communicate.

Masahiko discloses an antenna coil (14) mounted on an interface (see figure 2) formed in such a way as to be able to communicate.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the antenna coil design of Masahiko in Ohtani et al. in view of Houdeau et al., for the purpose of enabling communication.

The specific communication distance would have been an obvious design consideration based on the communication necessary.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al. in view of Houdeau et al. as applied to claim 1 above, and further in view of Moskowitz et al. [US 5,528,222].

Art Unit: 2841

Regarding claim 21, Ohtani et al. in view of Houdeau et al. disclose the instant claimed invention except for: the provision of at least one of a protection/personalization film and an adhesive film over at least one of the faces of the device.

Moskowitz et al. disclose a flexible card interface support microchip having at least one of a protection/personalization film and an adhesive film over at least one of the faces of the device.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use one of a protection/personalization film and an adhesive film over at least one of the faces of the device of Ohtani et al. in view of Houdeau et al., for the purpose of readily identifying the device.

7. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al. in view of Houdeau et al. as applied to claim 1 above, and further in view of Grant et al. [US 6,095,416].

Regarding claim 22, Ohtani et al. in view of Houdeau et al. disclose the instant claimed invention except for: a resonance capacitor made up of two conductive plates placed on respective sides of the support film.

Grant et al. disclose a capacitor (see figure 9s) formed by conductive plate (212, 208) on a smart card.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the layers of the interface of Ohtani et al. in view of

Houdeau et al., as suggested by Grant et al., for the purpose of providing a capacitor elements in the interface.

Regarding claim 23, Ohtani et al. in view of Houdeau et al. disclose the instant claimed invention except for: a capacitor having an adjustment facility.

Grant et al. disclose an adjustable capacitor (see figures 9a-b).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use an adjustment design of Grant et al. in Ohtani et al. in view of Houdeau et al., for the purpose of providing user controllable function.

8. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al. in view of Tuttle [US 6,037,879].

Regarding claim 24, Ohtani et al. disclose an electronic chip device (1, see figure 4) comprising an interface support film (8, see column 4, lines 46-52) including a support film and at least one flat conductive interface (6) placed on the support film, said interface support film having such properties that it is capable of being creased or folded over (see figure 5) onto itself without deterioration, and a microcircuit (2) connected to the interface (see column 3, lines 45-50).

Ohtani et al. disclose the instant claimed invention except for: the microcircuit containing at least one of an integrated capacitor and an emergency antenna.

Tuttle discloses an interface having a microcircuit including an integrated circuit (16, see column 5, lines 8-37), at least one of an integrated capacitor (48, figure 8) and an emergency antenna (41, 46, see column 5, lines 38-42).

Art Unit: 2841

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the integrated antenna/decoupling capacitor of Tuttle in Ohtani et al., for the purpose of enabling wireless communication from the device.

Regarding claim 25, Ohtani et al. disclose the instant claimed invention except for: the microcircuit is powered and can communicate at close range via the emergency antenna if the interface of the support film fails.

Tuttle further discloses a power source (18) for the microcircuit and the microcircuit being selectively actuated (see abstract).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the power source of Tuttle in Ohtani et al., for the purpose of providing power to the microcircuit.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the selective actuation of the microcircuit to send a signal in the event of an emergency.

9. Claims 26-27 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masahiko in view of Ohtani et al.

Regarding claims 26 and 27, Masahiko discloses a chip card (1, see figure 12b, column 5, lines 32-35) comprising a card body (21a) on which an electronic chip device (23) is fixed, the card body having an area at least double that of the device (see figure 5), said electronic chip device comprising an interface support (see figure 5).

Masahiko discloses the instant claimed invention except for: the support having such properties that it is capable of being creased or folded over onto itself without deterioration, and a microcircuit connected to the interface.

Ohtani et al. disclose a support for a microcircuit (2) including a support film having such properties that it is capable of being creased or folded over onto itself without deterioration, and a microcircuit connected to the interface.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the film design of Ohtani et al. for the support of Masahiko, for the purpose of enabling the device to be creased or folded over onto itself without deterioration and a microcircuit connected to the interface.

Regarding claim 52, Masahiko in view of Ohtani et al. discloses the claimed invention except for the support film having at least one of an elongation at break of more than 80 %, a shore hardness of less than 80, a vitreous transition temperature T_g of less than 0° , and a fusion temperature of less than 130°C .

It would have been an obvious matter of design choice, absent evidence of criticality shown in the present invention and the lack of implicit or explicit limit to a specific design in the prior art, to change the elongation at break, the shore hardness, the vitreous transition temperature T_g or the fusion temperature, since applicant has not disclosed that any particular elongation at break, shore hardness, vitreous transition temperature T_g or fusion temperature solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well with elongation at break, shore hardness, vitreous transition temperature T_g or fusion temperature of

Art Unit: 2841

Ohtani et al. It is noted that it is a truism that a claim need not be limited to a preferred embodiment. Ethicon, 93 F.3d at 1582 n.7, 40 USPQ2d at 1027 n.7 (quoting In re Vickers, 141 F.2d 522, 525, 61 USPQ2d 122, 125 (CCPA 1944)).

10. Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masahiko (figure 5) in view of Ohtani et al., as applied to claims 26 and 27 above, and further in view of Masahiko (figure 12b).

Regarding claim 28, Masahiko (figure 5) discloses the instant claimed invention except for: the chip card having two external films between which an electronic chip device is sandwiched.

Masahiko (see figure 12b) discloses a chip card having two external films (203a, 203b) between which an electronic chip device (201) is sandwiched.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the film mounting technique of Masahiko (figure 12b) for the film layer of Masahiko (figure 5) for the purpose of protecting the microcircuit.

Regarding claim 29, Masahiko (see figure 5) disclose the instant claimed invention except for: one of the external films forming the card body.

Masahiko (figure 12b) discloses one of the external films forming said card body.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the film design of Masahiko (figure 12b) for the film design of Masahiko (figure 5) for the purpose of reducing components.

Art Unit: 2841

Regarding claim 30, Masahiko (figure 5) disclose the instant claimed invention except for: the card body having a cavity in which the microcircuit is located and wherein the support film and the interface extend outside the cavity over the surface of the card body.

Masahiko (figure 12b) discloses the card body (204) having a cavity (see figure 12b) in which the microcircuit (201) is located and wherein the support film and the interface extend outside the cavity over the surface of the card body.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have the film extend over the cavity, as suggested by Masahiko (figure 12b) in Masahiko (figure 5), for the purpose of preventing contaminants from entering the cavity.

Allowable Subject Matter

11. Claims 53-64 are allowed.

12. The following is an examiner's statement of reasons for allowance: The prior art of record does not teach or suggest a chip card having a card body with an interface support film supporting at least one flat communication interface formed by plural turns of conductive material on the film, wherein the interface support film has such properties that it is capable of being folded over on to its self with the radius of curvature least than 2.5mm without deterioration, and a microcircuit connected to the interface.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2841

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

13. Claims 4, 5, 7, 8, 13-15 and 48-51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

14. Applicant's arguments filed 12/04/01 have been fully considered but they are not persuasive.

Applicant argues:

[1]: Ohtani et al. does not disclose the electronic device having an interface support film that is capable being creased or folded over on to its self without deterioration.

[2]: Ohtani et al. does not disclose that the tape carrier can be folded so that the radius of curvature is less than 2.5 mm.

[3]: Ohtani et al. does not disclose an interface such as electrical contacts an antenna.

[4]: The specific shore hardness, vitreous, transition temperature and fusion temperature are not obvious design considerations.

Examiner disagree:

Regarding 1, Ohtani et al. disclose the electronic device having an interface support film that is capable being creased or folded over on to its self without deterioration. Applicant has not claimed, nor has examiner consider any specific material or radius of curvature of the fold or crease.

Regarding 2, the claims involving the specific radius of curvature have now been indicated to be allowable.

Regarding 3, Ohtani et al. disclose an interface (4, see figure 5).

Regarding 4, applicant has not claimed or stated any specific advantages of a specific shore hardness, vitreous, transition temperature and fusion temperature are not obvious design considerations.

Conclusion

15. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Art Unit: 2841

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung S Bui whose telephone number is (703) 305-8024. The examiner can normally be reached on Monday-Friday 8:30AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S. Martin can be reached on (703) 308-3121. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0956.

HB
2/18/02

A handwritten signature in black ink, appearing to read 'DLM', with a long, sweeping flourish extending to the right.

David Martin
Primary Examiner